

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A steering wheel assembly for a vehicle comprising:
a non-circular steering wheel;
an airbag module mounted to the steering wheel, the airbag module including an airbag inflator, an inflatable airbag cushion, and an airbag module housing; and
a deployable reaction surface for providing or receiving a reaction force for the airbag cushion when deployed and inflated, further comprising trim that covers the reaction surface when the airbag cushion is undeployed and wherein the trim contacts the reaction surface when the airbag cushion is deployed, wherein the airbag module comprises movable plates that include locking hinges to permit deployment to a predetermined position.

Claim 2 (Original): The steering wheel assembly of claim 1, wherein the deployable reaction surface is a component of the airbag module.

Claim 3 (Original): The steering wheel assembly of claim 2, wherein the deployable reaction surface is at least portion of the airbag module housing which deploys to provide a reaction force for the inflatable airbag cushion.

Claim 4 (Original): The steering wheel assembly of claim 3, wherein the deployable reaction surface is at least two individual portions of the airbag module housing which deploy to provide a reaction force for the inflatable airbag cushion.

Claim 5 (Original): The steering wheel assembly of claim 3, wherein the portion of the airbag module housing which deploys to provide a reaction force for the airbag cushion is positioned to deploy into a position about the steering wheel.

Claim 6 (Original): The steering wheel assembly of claim 5, wherein the portion of the airbag module housing deploys into a position about the steering wheel not occupied by a portion of the steering wheel and below a space occupied by the airbag cushion when inflated.

Claim 7 (Original): The steering wheel assembly of claim 4, wherein the at least two individual portions of the airbag module housing included in the reaction surface are positioned at about the 12:00 and 6:00 positions of the steering wheel.

Claim 8 (Currently Amended): The steering wheel assembly of claim 4, wherein the individual portions of the airbag module housing included in the reaction surface are the ~~comprise~~ movable plates.

Claim 9 (Original): The steering wheel assembly of claim 8, wherein the movable plates are hinged plates positioned about the airbag cushion in the airbag module which deploy outwardly upon inflation of the airbag cushion.

Claim 10 (Original): The steering wheel assembly of claim 9, wherein the movable plates are spring-loaded.

Claim 11 (Canceled)

Claim 12 (Original): The steering wheel assembly of claim 2, wherein the deployable reaction surface is a portion of the inflatable airbag cushion.

Claim 13 (Previously Presented): The steering wheel assembly of claim 12, wherein the deployable reaction surface comprises a reaction arm portion of the inflatable airbag cushion which contacts a portion of a steering wheel or steering wheel shroud of a vehicle.

Claim 14 (Original): The steering wheel assembly of claim 13, wherein the deployable reaction surface of the inflatable airbag cushion includes more than one reaction arm portion.

Claim 15 (Original): The steering wheel assembly of claim 1, wherein the deployable reaction surface is a component of the steering wheel.

Claim 16 (Original): The steering wheel assembly of claim 15, wherein the steering wheel includes handles, wherein the handles are comprised of first and second handle portions which separate to provide a more evenly distributed reaction surface for an airbag cushion.

Claim 17 (Original): The steering wheel assembly of claim 15, wherein the steering wheel includes a flexible sheet for deployment about the steering wheel to provide a reaction force to an airbag cushion.

Claim 18 (Original): The steering wheel assembly of claim 17, wherein the steering wheel includes at least two flexible sheets.

Claim 19 (Original): The steering wheel assembly of claim 17, wherein the flexible sheet is housed in at least one handle of the steering wheel, wherein the handle of the steering wheel is comprised of first and second handle portions that can separate to deploy the flexible sheet.

Claim 20 (Original): The steering wheel assembly of claim 19, wherein the first and second handle portions are separated by a pyrotechnic device.

Claim 21 (Original): The steering wheel assembly of claim 19, wherein the first and second handle portions are separated by an electronic solenoid switch.

Claim 22 (Original): The steering wheel assembly of claim 15, wherein the deployable reaction surface further includes at least one portion of the airbag housing.

Claim 23 (Original): The steering wheel assembly of claim 21, wherein the deployable reaction surface includes two individual portions of the airbag housing.

Claim 24 (Currently Amended): An airbag module for use with a non-circular steering wheel comprising:

an airbag inflator;

an airbag cushion, the airbag cushion having an occupant face and a reaction face;

an airbag module housing; and

a deployable reaction surface, wherein the deployable reaction surface deploys from the airbag module upon activation of the airbag module to provide a reaction surface to an inflated airbag cushion, further comprising trim that covers the reaction surface when the airbag cushion is undeployed and wherein the trim contacts the reaction surface when the airbag cushion is deployed, wherein the airbag module comprises movable plates that include locking hinges to permit deployment to a predetermined position.

Claim 25 (Original): The airbag module of claim 24, wherein the deployable reaction surface includes at least a portion of the airbag module housing.

Claim 26 (Currently Amended): The airbag module of claim 25, wherein the portion of the airbag module housing is one of the moveable plates a hinged movable plate positioned about the airbag cushion that deploys outwardly upon inflation of the airbag cushion.

Claim 27 (Original): The airbag module of claim 26, wherein the hinged movable plate is spring-loaded.

Claim 28 (Original): The airbag module of claim 26, wherein the hinged movable plate includes locking hinges to permit deployment of the plate to a predetermined position.

Claim 29 (Original): The airbag module of claim 26, wherein the deployable reaction surface includes two portions of the airbag module housing.

Claim 30 (Original): The airbag module of claim 29, wherein the two portions of the airbag module housing are hinged movable plates positioned about the airbag cushion that deploy outwardly upon inflation of the airbag cushion.

Claim 31 (Original): The airbag module of claim 29, wherein the hinged movable plates are spring-loaded.

Claim 32 (Cancelled)

Claim 33 (Currently Amended): An airbag module for use with a non-circular steering wheel comprising:

an airbag inflator;

an airbag cushion, the airbag cushion having an occupant face and a reaction arm portion that extends to abut a vehicular steering wheel or steering wheel shroud when installed in a vehicle and inflated to provide a reaction surface for the airbag cushion; and

an airbag module housing, further comprising trim that covers the reaction surface when the airbag is undeployed and wherein the trim contacts the reaction surface when the airbag is deployed, wherein the airbag module housing comprises movable plates that include locking hinges to permit deployment to a predetermined position.

Claim 34 (Previously Presented): The airbag module of claim 33, wherein the steering wheel comprises two steering wheel shrouds.

Claim 35 (Currently Amended): A non-circular steering wheel comprising a deployable reaction surface for a steering wheel mounted airbag cushion, wherein the airbag cushion is

housed within a housing, wherein the airbag module housing comprises movable plates that include locking hinges to permit deployment to a predetermined position

Claim 36 (Original): The non-circular steering wheel of claim 35, wherein the non-circular steering wheel includes two handles comprised of first and second handle portions that separate to deploy a deployable reaction surface.

Claim 37 (Original): The non-circular steering wheel of claim 36, wherein the reaction surface is a flexible sheet.

Claim 38 (Original): The non-circular steering wheel of claim 36, wherein the reaction surface is a webbing.

Claim 39 (Original): The non-circular steering wheel of claim 36, wherein the grip portions are opened by a pyrotechnic device.

Claim 40 (Original): The non-circular steering wheel of claim 36, wherein the grip portions are opened by an electronic solenoid switch.

Claim 41 (Currently Amended): An airbag module for use with a non-circular steering wheel comprising:

an airbag inflator;
an airbag cushion, the airbag cushion having an occupant face and a reaction face; and
an airbag module housing including a deployable reaction surface, wherein the deployable reaction surface deploys from the airbag module upon activation of the airbag module to provide a reaction surface to an inflated airbag cushion, further comprising trim that covers the reaction surface when the airbag is undeployed and wherein the trim contacts the reaction surface when the airbag is deployed, wherein the airbag module comprises movable plates that include locking hinges to permit deployment to a predetermined position

Claim 42 (Currently Amended): The airbag module of claim 41, wherein the deployable reaction surface is one of the ~~a~~ hinged movable plates positioned about the airbag cushion that deploys outwardly upon inflation of the airbag cushion.

Claim 43 (Original): The airbag module of claim 42, wherein the hinged movable plate is spring-loaded.

Claim 44 (Cancelled)

Claim 45 (Currently Amended): The airbag module of claim 41, wherein the deployable reaction surface includes two of the hinged movable plates positioned about the airbag cushion that deploy outwardly upon inflation of the airbag cushion.

Claim 46 (Original): The airbag module of claim 45, wherein the hinged movable plates are spring-loaded.

Claim 47 (Cancelled)

Claim 48 (Cancelled)

Claim 49 (Original): A non-circular steering wheel comprising two handles comprising first and second handle portions that separate to deploy two deployable reaction surfaces.

Claim 50 (Original): The non-circular steering wheel of claim 49, wherein the deployable reaction surfaces are flexible sheets.

Claim 51 (Original): The non-circular steering wheel of claim 49, wherein the deployable reaction surfaces are webbing.

Appl. No. 10/731,489

Response dated May 23, 2007

Reply to Final Office Action of February 28, 2007

Claim 52 (Original): The non-circular steering wheel of claim 49, wherein the grip portions are opened by a pyrotechnic device.

Claim 53 (Original): The non-circular steering wheel of claim 49, wherein the grip portions are opened by an electronic solenoid switch.